THE ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH

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Zinder

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Dear Joshua:

I will take care of the distribution of the reprints and also send Lewis a culture. I'm not sure what he means by genetically stable.

I have looked at India imk preps of K-12 protoplasts prepared both with penicillin and lysozyme. See what you mean about the former but the latter are some smaller and I am really not sure whether they are haloed or not. This could be settled only serologically and then only if you get a positive result . Failure to interact could be due to any of a variety of reasons such as distortion of bond angles etc.

Can I have your formula for growing L colonies as I would like to see them. Your Y-10 story sounds as if some contaminant in penicillinwas requisite for growth. I saw Park recently and he was very enthusiastic about the turn of evnts with re penicillin and lysozyme as he has been concerned with both. He believes that the difficulties in the effectivity of lysozyme on the gram negs is a reflection of the fact that they have in their wall fewer of the lactyl glucosamine residues and therefore only a few bonds are broken, accounting for the kind of hatching I thought I observed.

I was aware of your comment on curing lysogenic cells in the lysogenicity paper but this is apparently insufficient or more probably unnoticed amongst the waalth of other detail in the paper. Since writing you last I have had another request for this kind of information. Szybalski (from whence all rumors come) has let it be known far and wide that I have developed some technique for curing cells. I don't think that an explicit note in MGB would be out of line.

My thinking on the problem of the integration of prophage has now come almost full circle. All of the current evidence tends to indicate that the prophage is more than casually associated with some genetic structure in the bacteria but not much more . The evidence comes from two directions. I. I have not sudceeded in demonstrating that cured cells remember anything of the lysogenic condition. II. Efficient prophage substitution does not seem to be a unique thing and when it occurs a good fraction of the treated cells end up cured. More on this in the near future.

Sincerely

Norton

P.S. Su543 is lysogenic for an A phage.

	(A) LT2	(B) Su543	
P(A)	1	10^{-7}	← recombinant between P(A) + carried phage
P(B)	.1	1	
P(B,A)	1	10^{-3}	